[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-1169; Directorate Identifier 2010-NM-050-AD; Amendment 39-17040; AD 2012-09-05]

RIN 2120-AA64

Airworthiness Directives; Fokker Services B.V. Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Fokker Services B.V. Model F.28 Mark 0100 airplanes. This AD was prompted by reports of failure of the main fitting on Messier-Dowty main landing gear (MLG) units due to fatigue cracking in the area of the filler and bleeder holes, and failure of the sliding member due to fatigue cracking at the area of the chrome run-out/lower radius of the sliding tube portion of the sliding member. This AD requires modification and re-identification of the MLG units, or replacement of the MLG unit with a modified one. We are issuing this AD to detect and correct fatigue cracking of the main fitting or sliding member on the MLG, which could lead to failure of the MLG and possibly loss of control of the airplane during landing rollout.

DATES: This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of November 18, 2010 (75 FR 63042, October 14, 2010).

ADDRESSES: You may examine the AD docket on the Internet at http://www.regulations.gov or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1137; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on November 7, 2011 (76 FR 68668). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

> Since introduction of the F28 Mark 0100 aeroplane into airline service, there have been a number of occurrences with Messier-Dowty MLG [main landing gear] units where the main fitting failed, due to fatigue cracking in the area of

the filler and bleeder holes, and occurrences where the sliding member failed, due to fatigue cracking at the area of chrome run-out/lower radius of the sliding tube portion of the sliding member.

Investigation has revealed that the most probable cause of both the main fitting and sliding member cracks is high compressive stress during braking at higher deceleration levels outside the regular fatigue load spectrum. Starting at deceleration stress levels somewhat below limit load, the high compressive stress locally exceeds the elasticity limit of the material, leaving a residual tensile stress at release of the heavy braking load. Subsequently, this local residual tensile stress results in a negative effect on the fatigue life of the component.

This condition, if not detected and corrected, could lead to failure of the MLG, possibly resulting in loss of control of the aeroplane during the landing rollout. To address this unsafe condition, the Civil Aviation Authority of the Netherlands (CAA-NL) issued AD NL-2005-012 (EASA approval 2005-6363) [which corresponds to FAA 2007-04-23, Amendment 39-14956 (72 FR 8615, February 27, 2007)] to require repetitive inspections of the sliding member (Fokker Services SBF100-32-144) and AD NL-2006-003 (EASA approval 2006-0041) to require repetitive inspections of the main fitting (Fokker Services SBF100-32-146). Messier-Dowty has now developed a modification, resulting in a strengthened sliding member and a strengthened main fitting, which is the terminating action for these repetitive inspections.

For the reasons described above, this [EASA] AD requires the modification and reidentification of the affected MLG units, or replacement of the affected MLG units with modified units.

This [EASA] AD has been revised to * * * state that modification of an aeroplane * * * also constitutes terminating action for the actions required by CAA-NL AD (BLA) 2002-115/2 dated October 8, 2004 [which partially corresponds to FAA AD 2008-20-03, Amendment 39-15682 (73 FR 56452, September 29, 2008)].

You may obtain further information by examining the MCAI in the AD docket.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (76 FR 68668, November 7, 2011) or on the determination of the cost to the public.

Explanation of Change Made to this AD

We have revised paragraph (h)(2) of this AD to correct a typographical error. This error resulted in a reference to paragraph (c) of this AD instead of paragraph (g) of this AD.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed except for minor editorial changes and/or format changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (76 FR 68668, November 7, 2011) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (76 FR 68668, November 7, 2011).

Costs of Compliance

We estimate that this AD will affect 4 products of U.S. registry. We also estimate that it will take about 30 work-hours per product to comply with the basic requirements of this AD. The average labor rate is $85 per work-hour. Required parts will cost about $520,000 per product. Where the service information lists required parts costs that are

covered under warranty, we have assumed that there will be no charge for these parts. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of this AD to the U.S. operators to be $2,090,200, or $522,550 per product.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;

2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM (76 FR 68668, November 7, 2011), the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:

2012-09-05 Fokker Services B.V.: Amendment 39-17040. Docket No. FAA-2011-1169; Directorate Identifier 2010-NM-050-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD affects: AD 98-06-26, Amendment 39-10404 (63 FR 13502, March 20, 1998); AD 98-13-32, Amendment 39-10623 (63 FR 34581, June 25, 1998); AD 2004-14-01, Amendment 39-13710 (69 FR 41391, July 9, 2004); AD 2007-04-23, Amendment 39-14956 (72 FR 8615, February 27, 2007); AD 2008-20-03, Amendment 39-15682 (73 FR 56452, September 29, 2008); and AD 2010-21-12, Amendment 39-16472 (75 FR 63042, October 14, 2010).

(c) Applicability

This AD applies to Fokker Services B.V. Model F.28 Mark 0100 airplanes, certificated in any category, all serial numbers, equipped with Messier-Dowty (formerly Dowty-Rotol, Dowty Aerospace Gloucester) main landing gear (MLG).

(d) Subject

Air Transport Association (ATA) of America Code 32: Landing Gear.

(e) Reason

This AD was prompted by reports of failure of the main fitting on Messier-Dowty MLG units due to fatigue cracking in the area of the filler and bleeder holes, and failure of the sliding member due to fatigue cracking at the area of the chrome run-out/lower radius of the sliding tube portion of the sliding member. We are issuing this AD to detect and correct fatigue cracking of the main fitting or sliding member on the MLG, which could lead to failure of the MLG and possibly loss of control of the airplane during landing rollout.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Inspection for Part Numbers

Within 48 months after the effective date of this AD, do an inspection of the MLG to determine whether Messier-Dowty (formerly Dowty-Rotol, Dowty Aerospace Gloucester) MLG units having part number (P/N) 201072011, 201072012, 201072013, 201072014, 201072015, or 201072016 are installed on the airplane. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number of the MLG unit can be conclusively determined from that review. If any of those part numbers is found, do the requirements of paragraph (h) of this AD.

(h) Replacement or Modification and Re-Identification if Certain Part Numbers are Found

If, during the inspection required by paragraph (g) of this AD, any Messier-Dowty (formerly Dowty-Rotol, Dowty Aerospace Gloucester) MLG units having

P/N 201072011, 201072012, 201072013, 201072014, 201072015, or 201072016 are found, within 48 months after the effective date of this AD, do the actions specified in paragraph (h)(1) or (h)(2) of this AD.

(1) Replace each MLG unit having P/N 201072011, 201072012, 201072013, 201072014, 201072015, or 201072016, with a MLG unit having P/N 201072017, P/N 201072019, or P/N 201072021 (for left-hand), as applicable; or P/N 201072018, P/N 201072020 or P/N 201072022 (for right-hand), as applicable; in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-32-155, dated July 23, 2009, and do the actions required in paragraph (j) of this AD.

(2) Modify and re-identify each affected MLG unit identified in paragraph (g) of this AD, in accordance with the Accomplishment Instructions of Messier-Dowty Service Bulletin F100-32-112, dated July 17, 2009, and do the actions required in paragraph (j) of this AD.

(i) Parts Installation

As of the effective date of this AD, no person may install on any airplane a MLG unit having P/N 201072011, P/N 201072012, P/N 201072013, P/N 201072014, P/N 201072015, or P/N 201072016.

(j) Removing Placard and Airplane Flight Manual Amendment

After accomplishing the actions required by paragraph (h) of this AD, before further flight, remove the airplane flight manual amendment and placard that were installed as required by AD 2008-20-03, Amendment 39-15682 (73 FR 56452, September 29, 2008).

(k) Prior or Concurrent Actions

Prior to or concurrently with the action (replacement or modification) required by paragraph (h) of this AD, accomplish the following actions:

(1) Install the torque link spacer with changed outer diameter, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-32-097, dated September 30, 1995.

(2) Remove, if installed, the water spray deflectors, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-32-132, dated December 5, 2001.

(3) Replace all P/N AE70690E, P/N AE70691E, P/N AE99111E, and P/N AE99119E brake quick-disconnect couplings with improved units, in accordance with Part 2 of the Accomplishment Instructions of Fokker Service Bulletin SBF100-32-156, Revision 1, dated June 29, 2009. Accomplishing the actions required by this paragraph terminates the requirements of AD 2010-21-12, Amendment 39-16472 (75 FR 63042, October 14, 2010), for that airplane only.

(l) ADs Affected by Accomplishment of Paragraph (h) of This AD

Accomplishing the actions required by paragraph (h) of this AD terminates the requirements of the following ADs for that airplane only: AD 98-06-26, Amendment 39-10404 (63 FR 13502, March 20, 1998); AD 98-13-32, Amendment 39-10623 (63 FR 34581, June 25, 1998); AD 2007-04-23, Amendment 39-14956 (72 FR 8615, February 27, 2007); and AD 2008-20-03, Amendment 39-15682 (73 FR 56452, September 29, 2008).

(m) Other AD Affected by Accomplishment of Paragraph (h) of This AD

Accomplishing the actions required by paragraph (h) of this AD terminates the requirements of AD 2004-14-01, Amendment 39-13710 (69 FR 41391, July 9, 2004), for that airplane only.

(n) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1137; fax (425) 227-1149. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(o) Related Information

Refer to MCAI European Aviation Safety Agency (EASA) Airworthiness Directive 2009-0269R1, dated March 11, 2010, and the service information identified in paragraphs (o)(1) through (o)(5) of this AD, for related information.

(1) Fokker Service Bulletin SBF100-32-097, dated September 30, 1995.

(2) Fokker Service Bulletin SBF100-32-132, dated December 5, 2001.

(3) Fokker Service Bulletin SBF100-32-155, dated July 23, 2009.

(4) Fokker Service Bulletin SBF100-32-156, Revision 1, dated June 29, 2009.

(5) Messier-Dowty Service Bulletin F100-32-112, dated July 17, 2009.

(p) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the following service information under 5 U.S.C. 552(a) and 1 CFR part 51 on the date specified.

(2) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise.

(3) The following service information was approved for IBR on [INSERT DATE 35 DAYS AFTER PUBLICATION].

(i) Fokker Service Bulletin SBF100-32-097, dated September 30, 1995.

(ii) Fokker Service Bulletin SBF100-32-132, dated December 5, 2001.

(iii) Fokker Service Bulletin SBF100-32-155, dated July 23, 2009.

(iv) Messier-Dowty Service Bulletin F100-32-112, dated July 17, 2009.

(4) The following service information was approved for IBR November 18, 2010 (75 FR 63042, October 14, 2010).

(i) Fokker Service Bulletin SBF100-32-156, Revision 1, dated June 29, 2009.

(5) For Fokker service information identified in this AD, contact Fokker Services B.V., Technical Services Dept., P.O. Box 231, 2150 AE Nieuw-Vennep, the Netherlands; telephone +31 (0)252-627-350; fax +31 (0)252-627-211; e-mail technicalservices.fokkerservices@stork.com; Internet http://www.myfokkerfleet.com.

(6) For Messier-Dowty service information identified in this AD, contact Messier Services Americas, Customer Support Center, 45360 Severn Way, Sterling, Virginia 20166-8910; telephone 703-450-8233; fax 703-404-1621; Internet https://techpubs.services.messier-dowty.com.

(7) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(8) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, call 202-741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on April 26, 2012.

Michael J. Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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